



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,885	07/28/2003	Robert P. Enns	1014-072US01 / JNP-0323	3864
28863	7590	11/27/2006	EXAMINER	
SHUMAKER & SIEFFERT, P. A. 8425 SEASONS PARKWAY SUITE 105 ST. PAUL, MN 55125			DAYE, CHELCIE L	
			ART UNIT	PAPER NUMBER
			2161	

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/628,885	ENNS ET AL.
	Examiner	Art Unit
	Chelcie Daye	2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 05 September 2006.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-15 and 19-35 is/are pending in the application.
4a) Of the above claim(s) 16-18 and 36-55 is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-15 and 19-35 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) Notice of Informal Patent Application
6) Other: _____.

DETAILED ACTION

1. This action is issued in response to applicant's amendment filed September 5, 2006.
2. Claims 1-55 are presented. No claims added and none cancelled.
3. Claims 16-18 and 36-55 remain withdrawn.
4. Claims 1-15 and 19-35 are pending.
5. Applicant's arguments filed September 5, 2006, have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. **Claims 1-3,15,22-24, and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Valois (US Patent Publication No. 2004/0260818) filed June 23, 2003.**

Regarding Claims 1 and 22, Valois discloses a method comprising:
storing authorization data that defines an access control attribute ([0058],
lines 4-10, Valois)¹ and an associated regular expression specifying a textual
pattern ([0057], lines 4-9, Valois);
evaluating a command using the regular expression to determine whether
the command matches the textual pattern ([0064], lines 1-5, Valois)²; and
controlling³ access to configuration data of a device based on the
evaluation ([0066], lines 1-9, Valois).

Regarding Claims 2 and 23, Valois discloses a method wherein controlling
access comprises
allowing access to the configuration data when the textual pattern of the
regular expression matches the command ([0067], lines 1-4, Valois).

Regarding Claims 3 and 24, Valois discloses a method wherein controlling
access comprises
denying access to the configuration data when the textual pattern of the
regular expression matches the command ([0067], lines 5-9, Valois).

¹ Examiner Notes: Authorization data corresponds to "references" and the definition is an attribute that is part of the Access Control List (ACL).

² Examiner Notes: The process of evaluating corresponds to "identifying and assessing". Also "the list of rules" corresponds to command.

³ Examiner Notes: The act of controlling the access is done by the "validation engine", which extracts and compares the information to determine if there is a match or not.

Regarding Claims 15 and 35, Valois discloses a method wherein controlling access comprises controlling access to configuration data of a router ([0053], lines 6-10, Valois).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Valois (US Patent Publication No. 2004/0260818) filed June 23, 2003, as applied to claims 1-3,15,22-24, and 35 above, and further in view of Mitra (US Patent No. 6,973,460) filed November 26, 2002.**

Regarding Claim 4, Valois discloses a method for storing authorization data ([0058], lines 4-10, Valois). However, Valois does not explicitly disclose storing the authorization data as a class that conforms to a class syntax. On the other hand, Mitra discloses storing the authorization data as a class that conforms to a class syntax (column 8, lines 7-18, Mitra). It would have been obvious to one of ordinary skill in the art at the time of the invention to

incorporate Mitra's teaching into the Valois system. A skilled artisan would have been motivated to combine the two references as suggested by Mitra (column 7, lines 48-52), in order for the classes to be annotated such that, at run-time, useful information about how the data is organized for each of the various ways of storing the data (i.e. configuration) may be extracted from the annotations. As a result, this allows for various services to perform operations in accordance with the information.

10. Claims 5-11 and 25-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Valois (US Patent Publication No. 2004/0260818) filed June 23, 2003, in view of Delany (US Patent Publication No. 2002/0156879) filed November 30, 2001.

Regarding Claims 5 and 25, Valois discloses a method for the evaluation of the regular expression ([0064], lines 1-5, Valois). However, Valois does not explicitly disclose including a coarse-grain access control attribute within the authorization data that defines access control rights for respective groups of resources provided by the device, and controlling access to the configuration data, based on the coarse-grain access control attribute. On the other hand, Delany discloses including a coarse-grain access control attribute ([0118], lines 1-6, Delany) within the authorization data that defines access control rights for respective groups of resources provided by the device ([0161], lines 1-3, Delany), and controlling access to the configuration data, based on the coarse-grain

access control attribute ([0118], lines 1-6, Delany). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Delany's teachings into the Valois system. A skilled artisan would have been motivated to combine in order to achieve the level of detail at which the data would have been considered. Valois and Delany are analogous art because they are from the same field of endeavor of relating to a system that provides authorization compliance validation with a security policy. As a result, coarse-grain access provides higher performance through more optimized protocols and the data tends to work on contiguous regions at a time.

Regarding Claims 6 and 26, the combination of Valois in view of Delany, disclose a method wherein the coarse-grain access control attribute comprises a set of permission bits, and each of the permission bits is associated with a respective group of the resources ([0161], lines 3-5, Delany).

Regarding Claims 7 and 27, the combination of Valois in view of Delany, disclose a method further comprising receiving the command from a client via a command line interface ([0199], lines 2-11, Delany)⁴.

Regarding Claims 8 and 28, the combination of Valois in view of Delany, disclose a method wherein evaluating the command comprises evaluating the

command in real-time ([0383], lines 9-14, Delany) while the client inputs the command via the command line interface ([0199], lines 2-11, Delany).

Regarding Claims 9 and 29, the combination of Valois in view of Delany, disclose a method wherein the configuration data is arranged in the form of a multi-level configuration hierarchy having a plurality of objects (Fig.5, [0142], lines 1-2, Delany), and each of the objects represents a portion of the configuration data that relates to one or more resources of the device ([0142], lines 2-5, Delany).

Regarding Claims 10 and 30, the combination of Valois in view of Delany, disclose a method wherein the objects have respective textual labels ([0143], lines 1-4, Delany) and the regular expression defines the textual pattern to match the textual labels ([0057], lines 4-9, Valois) of a set of one or more of the objects within the configuration hierarchy (Fig.5, Delany).

Regarding Claims 11 and 31, the combination of Valois in view of Delany, disclose a method wherein evaluating the command comprises applying the regular expression to the command ([0099], lines 1-7, Valois) to determine whether the command specifies any of the objects within the set ([0142], lines 2-5, Delany).

⁴ Examiner Notes: Receiving the command from a client corresponds to "a user can request..." and the

11. Claims 12-14,19-21, and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Valois (US Patent Publication No. 2004/0260818) June 23, 2003, in view of Delany (US Patent Publication No. 2002/0156879) filed November 30, 2001, and further in view of Nelson (US Patent No. 6,243,713) filed August 24, 1998.

Regarding Claims 12 and 32, the combination of Valois in view of Delany, disclose a method further comprising to automatically insert one or more meta-characters into the regular expression ([0451-0453], lines 1-7, Delany) based on the hierarchical arrangement of the configuration data (Fig.5, Delany). However, Valois in view of Delany, do not explicitly disclose pre-processing the regular expression. On the other hand, Nelson discloses pre-processing the regular expression (column 10, lines 39-50, Nelson). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Nelson's teachings into the Valois in view of Delany system. A skilled artisan would have been motivated to combine the two references as suggested by Nelson (column 9, lines 60-65), in order to convert component data into a list of distinctive objects that represent the original data of the component, this is understood to perform data reduction. Pre-processing remove any non-essential information that does not substantially add to the quality of the system. As a result, pre-processing saves the system time and space for capacity.

Regarding Claims 13 and 33, the combination of Valois in view of Delany and further in view of Nelson, discloses a method further comprising:

receiving the command from a client via a command line interface ([0199], lines 2-11, Delany); and

pre-processing the regular expression (column 10, lines 39-50, Nelson) so that the command is evaluated with the regular expression in real-time ([0383], lines 9-14, Delany) as the client enters the command ([0199], lines 2-11, Delany).

Regarding Claims 14 and 34, the combination of Valois in view of Delany and further in view of Nelson, discloses a method wherein evaluating the command comprises evaluating the command with the pre-processed regular expression each time the client enters a token indicating a textual break within the command (column 17, lines 35-40, Nelson).

Regarding Claim 19, the combination of Valois in view of Delany and further in view of Nelson, discloses a method comprising:

receiving input ([0056], lines 3-7, Valois) defining an access control attribute ([0058], lines 4-10, Valois) and an associated regular expression that specifies a textual pattern ([0057], lines 4-9, Valois);

pre-processing the regular expression (column 10, lines 39-50, Nelson) to automatically insert one or more meta-characters into the regular expression ([0451-0453], lines 1-7, Delany); evaluating a command in real-time using the regular expression ([0383], lines 9-14, Delany) as a client enters the command via a command line interface ([0199], lines 2-11, Delany); and controlling access to configuration data of a device based on the evaluation ([0066], lines 1-9, Valois).

Regarding Claim 20, the combination of Valois in view of Delany and further in view of Nelson, discloses a method further comprising storing the configuration data in the form of a multi-level configuration hierarchy having a plurality of objects (Fig.5, [0142], lines 1-2, Delany), wherein pre-processing the regular expression comprises automatically inserting one or more meta-characters into the regular expression ([0451-0453], lines 1-7, Delany) based on the hierarchical arrangement of the configuration data (Fig.5, Delany).

Regarding Claim 21, the combination of Valois in view of Delany and further in view of Nelson, discloses a method wherein the regular expression defines a textual pattern that identifies one or more of the objects within the configuration hierarchy, and evaluating the command comprises:

applying the regular expression in real-time ([0383], lines 9-14, Delany) to determine whether a portion of the command that has been entered by the client matches the textual pattern ([0064], lines 1-5, Valois); and selectively allowing the client to complete the command based on the determination ([0199], lines 2-11, Delany).

Response to Arguments

Applicant argues, Valois fails to teach, “storing authorization data that defines an access control attribute and an associated regular expression specifying a textual pattern”.

Examiner respectfully disagrees. As stated in the action above, Valois discloses at [0057-0058], lines 4-8 and lines 4-10, respectively; wherein tests are performed, such as pattern-matching techniques, which are exemplified within a test program. The test program has an example of a pattern-matching technique such as a Global Regular Expression Print searching, which searches files by keyword followed by a string comparison. Also, another test program is performed for contextual parsing techniques, which is used to extract all references of access control lists in a configuration file. The definitions and references of the access control lists are stored in a set of data structures. The set of definitions and references are examples of attributes of the access control list. Further, Valois discloses at [0055]; wherein the test programs discussed are found within a test scripts database, which contains a collections of test scripts or expert rules that expresses a security characteristic or policy. Therefore, since

the test scripts perform various tests for security purposes, representing authorization data; and the different test programs discussed are located within the test scripts are representations of authorization data defining an access control attribute and associated regular expression specifying a textual pattern.

Applicant argues, Valois fails to teach, “evaluating a command using the regular expression to determine whether the command matches the textual pattern”.

Examiner respectfully disagrees. As stated in the action above, Valois discloses at [0064], lines 1-5, wherein the test program is developed to identify and assess (i.e. evaluate) access control lists and the access control is a list of rules describing what is allowed or denied. The list of rules corresponds to the command being evaluated. To further elaborate, Valois discloses at [0099]; wherein an extraction process is performed using a command tool such as the Global Regular Expression Print. As stated earlier the Global Regular Expression Print is a pattern-matching technique. Thereby disclosing the step of evaluating a command using the regular expression to determine whether the command matches the textual pattern.

Applicant argues, Valois fails to teach, “controlling access to configuration data of a device based on the evaluation of the command”.

Examiner respectfully disagrees. As stated in the action above, Valois discloses at [0066], lines 1-9; wherein the validation engine extracts references from the configuration repository database and performs a comparison matching to determine

whether the references object matches the defined object. The process of extracting and comparing correspond to the act of controlling access to the configuration data. Also, as a further clarification of the accessing, Valois shows at [0065]; wherein the test programs (discussed earlier with reference to the steps of the authorization data along with evaluating) implement the security policy requiring all definitions be references and vice versa, as well as performing a comparison of any kind of object. The specified citation demonstrates how the access can be controlled in order to later have the ability of entering the configuration data. Finally, Valois discloses more details of controlling the access at [0067]; wherein if a match is found the program succeeds and if a match is not found, the program fails.

In regards to claims 2 and 3, applicant argues, "Valois fails to anticipate the claim requirements because Valois provides no teaching of actually controlling access to configuration data of a device", along with clarifying how the "pass" result could teach denying access to the configuration data when the textual pattern of the regular expression matches the command.

Examiner respectfully disagrees. As stated in the arguments above, Valois does anticipate the requirements of disclosing the step of controlling access to the configuration data of a device. Also, Valois discloses at [0067]; wherein if an exact match is found a "pass" is the outcome, as well as if the match is not exactly equal, then a "fail" is the outcome. However, a list of all the objects are referenced but undefined,

and a list of all objects are defined but unreferenced, which shows that some of the programs were adequate in order to provide an alternative list.

Applicant argues, in regards to claim 4, "examiner points to no evidence in any of the references of record, as to technically how or for what reason a single class could be used to store disparate information".

Examiner respect disagrees. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, examiner stated within the office action, Mitra discloses at column 7, lines 48-52; wherein in order for the classes to be annotated such that, at run-time, useful information about how the data is organized for each of the various ways of storing the data (i.e. configuration) may be extracted from the annotations. Examiner believes this explanation alone provides efficient evidence to support the combination of the Mitra reference into the Valois reference. However, Mitra provides further explanations at column 8, lines 30-46; wherein a SecureIdentifiedObject is the base class and permissions (i.e. authorization data) may be an access control list, which allow users to review or edit secured elements. Also, Mitra discloses at column 19, lines 1-28; wherein

an XML framework provides classes to represent the data relied upon for the permissible values. An example of constructs to be used is the regular expression patterns for data to conform to. As a result, Mitra exudes the desired elements of Valois, along with the need of using a class syntax.

In regards to claim 5, applicant argues there is no teaching in the combination of references for controlling access using authorization data that defines both a coarse-grain access control attribute as well as a regular expression for evaluation of a command.

Examiner respectfully disagrees. As stated in the action above, the combination of Valois in view of Delany disclose the limitations of claims 5, specifically Delany discloses at [0118]; wherein authentication and authorization decisions are based on policy domains. Specifically, policy domains are host names and URL's which specify the coarse-grain portion of the given policy domain. Therefore, since Valois was relied upon earlier for disclosing the authorization data defining the regular expression of a command, Delany's authorization decisions are relied upon for including the coarse-grain portion.

In regards to claim 7, applicant argues Delany does not provide a command-line interface.

Examiner respectfully disagrees. As stated in the action above, Delany discloses at [0199], lines 2-11; wherein a user can request to create an object (i.e. command) via

a graphical user interface. A graphical user interface is an operating system, which uses icons and menus with a pointing device to execute commands. Delany also discloses at [0124], lines 9-13; wherein other operating systems are described which can be used within the invention such as UNIX.

In regards to claim 8, applicant argues, "Delany has nothing whatsoever to do with evaluation of commands at all, and provides no teaching or suggestion as to how commands could be evaluated in real-time while the commands are being entered using a command-line interface".

Examiner respectfully disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Specifically, applicant argues Delany has nothing to do with the evaluation of commands; however, Valois was relied upon within prior claims to disclose the limitation of the evaluation of commands. Therefore, the combination of Valois in view of Delany, were relied upon for the claim 8 limitations. Specifically, Delany is relied upon at [0383], lines 9-14, for disclosing a real-time protocol. Also, the limitation of the commands being entered using a command-line interface is discussed in the remarks above. Therefore, the combination of Valois in view of Delany, disclose evaluated the command in real-time while the client inputs the commands via the command-line interface.

In regards to claim 9, applicant argues, Valois in view of Delany fail to teach “the configuration data being arranged in the form of a multi-level configuration hierarchy having a plurality of objects, and each of the objects represents a portion of the configuration data that relates to one or more resources of the device”.

Examiner respectfully disagrees. As stated in the action above, Delany discloses a hierarchy tree at Fig.5 and at [0142], wherein the tree is a directory structure, which includes an identity profile with a plurality of users, groups, and organizations. Also, Valois was relied upon earlier for the disclosure of the configuration data of a network device. Therefore, the combination of Valois in view of Delany, disclose the limitations of claim 9.

In regards to claims 10-11, applicant argues, Delany is not describing configuration data and one would not modify the regular expression of the Valois testing tool to match labels for configuration data.

Examiner respectfully disagrees. In regards to applicants argument that Delany does not describe configuration data, see the remarks above with reference to claim 8. Also, as stated above Delany discloses at [0143], lines 1-4, which discloses the different objects of the hierarchy tree comprising textual labels (i.e. distinguished names). Each distinguished name uniquely identifies the node within the tree, thereby allowing the distinguished name to represent the node, which is being matched to the textual pattern as relied upon by Valois.

In regards to claim 13, applicant argues, "(1) Delany describes a graphical user interface and provides no suggestion of any form of textual command, (2) Nelson describes pre-processing text within a document and not pre-processing a regular expression, and (3) Delany's use of a protocol to determine the current status of a digital certificate provides no teaching of actually evaluating commands in real-time".

Examiner respectfully disagrees. (1) As stated in the remarks above, Delany does provide receiving the command from a command-line interface. (2) As stated in the action above, Nelson discloses at column 10, lines 39-63; wherein text pre-processing is performed. The text is tokenized (i.e. divided a block of text into tokens) and special sequences of tokens called idioms are recognized by matching the sequences. Also, Nelson discloses at column 17, lines 35-40, wherein words with specified patterns, such as UNIX-style regular expressions (or the idioms), the list of tokens are scanned and checked against the pattern. Lastly, (3) as stated in the remarks above, Delany's disclosure of evaluating the command in real-time is just and detailed.

In regards to claim 14, applicant argues, Nelson does not describe using regular expressions to evaluate commands entered by the user, let alone in real-time as the command is being entered.

Examiner respectfully disagrees. As stated in the action above, Nelson discloses at column 17, lines 35-40, wherein words with specified patterns, such as UNIX-style

regular expressions, are scanned and checked against the pattern. Further explanations are provided above with reference to claim 13. The arguments with reference to the command being entered by the user and in real-time has been addressed in the remarks above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

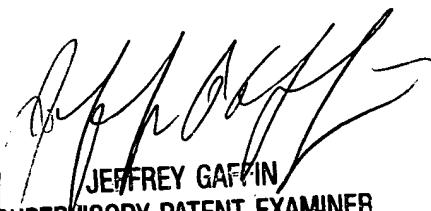
Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chelcie Daye whose telephone number is 571-272-3891. The examiner can normally be reached on M-F, 7:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chelcie Daye
Patent Examiner
Technology Center 2100
November 20, 2006



JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100